

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-11 are pending in the application. Claims 1, 3 and 10 are amended by the present amendment. Support for amended Claims 1 and 10 can be found in the original specification, claims and drawings.¹ No new matter is presented.

In the Office Action, Claims 1-2, 5 and 10-11 are rejected under 35 U.S.C. § 103(a) as unpatentable over Yoshihara et al. (U.S. Pat. 5,172,233, herein Yoshihara) in view of Kaneko et al. (U.S. Pat. 6,600,511, herein Kaneko); Claims 3-4 are rejected under 35 U.S.C. § 103(a) as unpatentable over Yoshihara in view of Kaneko and Kawakami et al. (U.S. Pat. 4,780,739, herein Kawakami); Claims 6-8 are rejected under 35 U.S.C. § 103(a) as unpatentable over Yoshihara in view of Kaneko and Namerikawa et al. (U.S. Pat. 6,089,090, herein Namerikawa); and Claim 9 is rejected under 35 U.S.C. § 103(a) as unpatentable over Yoshihara in view of Kaneko and Hasegawa (U.S. Pat. 5,900,927).

In response to the above noted rejections under 35 U.S.C. § 103, Applicants respectfully submit that amended independent Claims 1 and 10 recite novel features clearly not taught or rendered obvious by the applied references.

Independent Claim 1, for example, is amended to incorporate a portion of the features recited in Claim 3, and recites an apparatus for correcting a deviation of an imaging sensor of a digital camera, comprising:

a rotation detecting unit which detects a quantity of rotation of the digital camera causing the deviation of the imaging sensor from a reference position to occur, the rotation detecting unit including ... and a ***set of magnetic sensors*** provided in the digital camera ***to output signals indicative of magnetic fields of the digital camera along the X axis, the Y axis and the Z axis of the world coordinate system...***

¹ e.g., specification, at least at original Claim 3, Fig. 3 and p. 19, ll. 11-21.

Independent Claim 10, while directed to an alternative embodiment, is amended to recite similar features. Accordingly, the remarks and arguments presented below are applicable to each of independent Claims 1 and 10.

In rejecting the claimed features directed to the set of magnetic sensors, as previously recited in Claim 3, p. 5 of the Office Action asserts that the two dimensional PSD array P11-P44 shown in Fig. 9 of Yoshihara corresponds to the “set of magnetic sensors”, but concedes that Yoshihara and Kaneko “do not show the rotation detecting unit can output signals indicative of camera along the three dimensional coordinate system instead of two dimensional coordinate system”. In an attempt to remedy this deficiency, the Office Action relies on Kawakami. Applicants respectfully traverse this rejection.

As an initial matter, Yoshihara fails to teach or suggest that the Position Sensitive Detector (PSD) array 502 is a *set of magnetic sensors*, whatsoever. Instead, as described at col. 7, ll. 39-61 of Yoshihara, a blurring-prevention circuit 500 includes a two-dimensional PSD array 502 in which 16 two-dimensional PSDs P₁₁ to P₄₄ are arranged. An object image reflected by the half mirror 4 passes through an optical filter 501 and is incident on the two-dimensional PSD array 502. Groups of received signals output from the two-dimensional PSD array 502 are input to groups of center-of-gravity detectors 503x and 503y, which detect the center of gravity of the light distribution for each of the received signals output from the two-dimensional PSDs P₁₁ to P₄₄.

Thus, the two-dimensional PSD array 502 in Yoshihara includes image-based sensors that work with center-of-gravity detectors 503x and 503y to detect the center of gravity of the signals output from each of the image sensors in the PSD 502. Therefore, these sensors are not a *set of magnetic sensors*, as recited in amended independent Claim 1. Moreover, the PSD array 502 does not “*output signals indicative of magnetic fields of the digital camera along the X axis, the Y axis and the Z axis of the world coordinate system*”, as recited in

amended independent Claim 1. Instead, Yoshihara describes a process of using the outputs of the image sensors to determine a center of gravity of a detected image.

The Office Action relies on Fig. 6 and col. 5, ll. 7-25 of Kawakami to reject the claimed features directed to outputting signals indicative of camera along the three dimensional coordinate system instead of two dimensional coordinate system. This cited portion of Kawakami, however, describes a process of using piezoelectric elements 19a-19d to physically move the photo-electric element 2 to compensate for a detected vibration of the camera. As described at col. 5, ll. 19-27 of Kawakami, “by changing the polarities and magnitudes of the voltages applied to the piezoelectric elements 19a, 19b and 19c, 19d, the photo-electric conversion element 2 is displaced in the z-direction and y-direction [and] ... the image vibration signal (S1) can be rendered zero ...” Therefore, this cited portion of Kawakami merely describes physically moving the photo-electric conversion element 2 to compensate for detected vibration, and fails to teach or suggest that the device includes “a *set of magnetic sensors ... to output signals indicative of magnetic fields of the digital camera along the X axis, the Y axis and the Z axis of the world coordinate system...*”, as recited in amended Claim 1.

Moreover, Kaneko describes using a magnetic azimuth sensor 64 to detect angular-movement of a camera around one axis of the three-dimensional coordinate system, but also fails to teach or suggest that the camera includes “a *set of magnetic sensors ... to output signals indicative of magnetic fields of the digital camera along the X axis, the Y axis and the Z axis of the world coordinate system...*”, as recited in amended Claim 1.

Accordingly, for at least the reasons discussed above, Applicants respectfully request that the rejection of Claim 1 (and the claims that depend therefrom) under 35 U.S.C. §103 be withdrawn. For substantially similar reasons, it is also submitted that Claim 10 (and Claim 11, which depends therefrom) patentably defines over Yoshihara, Kaneko and Kawakami.

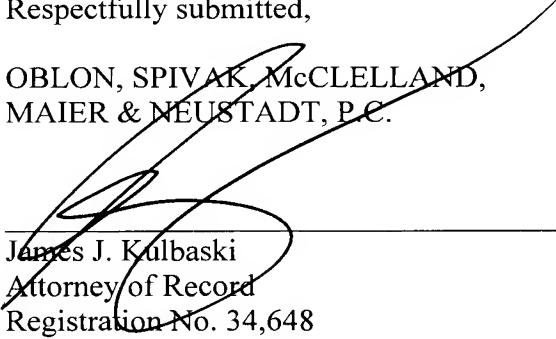
With regard to the rejection of Claims 4, 6-8 and 9 under 35 U.S.C. §103 as unpatentable over Yoshihara and Kaneko in view of Kawakami, Namerikawa or Hasegawa, Applicants note that each of Claims 4, 6-8 and 9 depend from independent Claim 1 and are believed to be patentable for at least the reasons discussed above. It is also submitted that neither Namerikawa nor Hasegawa cure the above noted deficiencies of Yoshihara, Kaneko and Kawakami.

Accordingly, Applicants respectfully request that the rejection of Claims 4, 6-8 and 9 under 35 U.S.C. §103 be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-11 patentably define over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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